

## § 990.52

## 15 CFR Ch. IX (1–1–02 Edition)

(1) The definition of injury has been met, as defined in § 990.30 of this part; and

(2)(i) An injured natural resource has been exposed to the discharged oil, and a pathway can be established from the discharge to the exposed natural resource; or

(ii) An injury to a natural resource or impairment of a natural resource service has occurred as a result of response actions or a substantial threat of a discharge of oil.

(c) *Identifying injury.* Trustees must determine whether an injury has occurred and, if so, identify the nature of the injury. Potential categories of injury include, but are not limited to, adverse changes in: survival, growth, and reproduction; health, physiology and biological condition; behavior; community composition; ecological processes and functions; physical and chemical habitat quality or structure; and public services.

(d) *Establishing exposure and pathway.* Except for injuries resulting from response actions or incidents involving a substantial threat of a discharge of oil, trustees must establish whether natural resources were exposed, either directly or indirectly, to the discharged oil from the incident, and estimate the amount or concentration and spatial and temporal extent of the exposure. Trustees must also determine whether there is a pathway linking the incident to the injuries. Pathways may include, but are not limited to, the sequence of events by which the discharged oil was transported from the incident and either came into direct physical contact with a natural resource, or caused an indirect injury.

(e) *Injuries resulting from response actions or incidents involving a substantial threat of a discharge.* For injuries resulting from response actions or incidents involving a substantial threat of a discharge of oil, trustees must determine whether an injury or an impairment of a natural resource service has occurred as a result of the incident.

(f) *Selection of injuries to include in the assessment.* When selecting potential injuries to assess, trustees should consider factors such as:

(1) The natural resources and services of concern;

(2) The procedures available to evaluate and quantify injury, and associated time and cost requirements;

(3) The evidence indicating exposure;

(4) The pathway from the incident to the natural resource and/or service of concern;

(5) The adverse change or impairment that constitutes injury;

(6) The evidence indicating injury;

(7) The mechanism by which injury occurred;

(8) The potential degree, and spatial and temporal extent of the injury;

(9) The potential natural recovery period; and

(10) The kinds of primary and/or compensatory restoration actions that are feasible.

### § 990.52 Injury assessment—quantification.

(a) *General.* In addition to determining whether injuries have resulted from the incident, trustees must quantify the degree, and spatial and temporal extent of such injuries relative to baseline.

(b) *Quantification approaches.* Trustees may quantify injuries in terms of:

(1) The degree, and spatial and temporal extent of the injury to a natural resource;

(2) The degree, and spatial and temporal extent of injury to a natural resource, with subsequent translation of that adverse change to a reduction in services provided by the natural resource; or

(3) The amount of services lost as a result of the incident.

(c) *Natural recovery.* To quantify injury, trustees must estimate, quantitatively or qualitatively, the time for natural recovery without restoration, but including any response actions. The analysis of natural recovery may consider such factors as:

(1) The nature, degree, and spatial and temporal extent of injury;

(2) The sensitivity and vulnerability of the injured natural resource and/or service;

(3) The reproductive and recruitment potential;

(4) The resistance and resilience (stability) of the affected environment;

(5) The natural variability; and

(6) The physical/chemical processes of the affected environment.

**§ 990.53 Restoration selection—developing restoration alternatives.**

(a) *General.* (1) If the information on injury determination and quantification under §§ 990.51 and 990.52 of this part and its relevance to restoration justify restoration, trustees may proceed with the Restoration Planning Phase. Otherwise, trustees may not take additional action under this part. However, trustees may recover all reasonable assessment costs incurred up to this point.

(2) Trustees must consider a reasonable range of restoration alternatives before selecting their preferred alternative(s). Each restoration alternative is comprised of primary and/or compensatory restoration components that address one or more specific injury(ies) associated with the incident. Each alternative must be designed so that, as a package of one or more actions, the alternative would make the environment and public whole. Only those alternatives considered technically feasible and in accordance with applicable laws, regulations, or permits may be considered further under this part.

(b) *Primary restoration*— (1) *General.* For each alternative, trustees must consider primary restoration actions, including a natural recovery alternative.

(2) *Natural recovery.* Trustees must consider a natural recovery alternative in which no human intervention would be taken to directly restore injured natural resources and services to baseline.

(3) *Active primary restoration actions.* Trustees must consider an alternative comprised of actions to directly restore the natural resources and services to baseline on an accelerated time frame. When identifying such active primary restoration actions, trustees may consider actions that:

(i) Remove conditions that would prevent or limit the effectiveness of any restoration action (e.g., residual sources of contamination);

(ii) May be necessary to return the physical, chemical, and/or biological conditions necessary to allow recovery or restoration of the injured natural

resources (e.g., replacing substrate or vegetation, or modifying hydrologic conditions); or

(iii) Return key natural resources and services, and would be an effective approach to achieving or accelerating a return to baseline (e.g., replacing essential species, habitats, or public services that would facilitate the replacement of other, dependent natural resource or service components).

(c) *Compensatory restoration*— (1) *General.* For each alternative, trustees must also consider compensatory restoration actions to compensate for the interim loss of natural resources and services pending recovery.

(2) *Compensatory restoration actions.* To the extent practicable, when evaluating compensatory restoration actions, trustees must consider compensatory restoration actions that provide services of the same type and quality, and of comparable value as those injured. If, in the judgment of the trustees, compensatory actions of the same type and quality and comparable value cannot provide a reasonable range of alternatives, trustees should identify actions that provide natural resources and services of comparable type and quality as those provided by the injured natural resources. Where the injured and replacement natural resources and services are not of comparable value, the scaling process will involve valuation of lost and replacement services.

(d) *Scaling restoration actions*— (1) *General.* After trustees have identified the types of restoration actions that will be considered, they must determine the scale of those actions that will make the environment and public whole. For primary restoration actions, scaling generally applies to actions involving replacement and/or acquisition of equivalent of natural resources and/or services.

(2) *Resource-to-resource and service-to-service scaling approaches.* When determining the scale of restoration actions that provide natural resources and/or services of the same type and quality, and of comparable value as those lost, trustees must consider the use of a resource-to-resource or service-to-service scaling approach. Under this approach,